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IN THE CLAIMS:

1. (Canceled).
2. (Currently amended) A network relaying apparatus as claimed in claim [[1]] 4, wherein said network relaying apparatus is a LAN switch including a virtual LAN.
3. (Currently amended) A network relaying apparatus as claimed in claim [[1]] 4, wherein if the user authentication indicates the user is not correct for said network address, said packet communicating means operates to suppress the change of the content of said means for storing the correspondence information relating to the connecting state of said network terminal and discard the received packet having caused the change.
4. (Currently amended) A network relaying apparatus, ~~as claimed in claim 1,~~ comprising:
a plurality of I/O ports adapted to be connected to
respective network terminals;
means for storing correspondence information indicating a
correspondence between each of said I/O ports and a network

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address of each of said network terminals connected to each of said I/O ports;

means for storing user authentication information for each of said network addresses;

packet communicating means for transmitting and receiving packets through said I/O ports;

packet relaying means for determining a destination of each packet received via said plurality of I/O ports on a basis of the correspondence information held by said means for storing the correspondence information, and for instructing said packet communicating means to transmit said received packets to the determined destination; and

user authenticating means for determining correspondence of user authentication information and network addresses on a basis of the user authentication information stored in said means for storing the authentication information,

wherein said packet relaying means operates to learn whether there is correspondence between an I/O port which has received a packet and said source network address identified in the packet on a basis of the source network address contained in said received packet, request user authentication information for a source network terminal having the source network address if the change of the content of said means for

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storing the correspondence information relating to the connecting state of the source network terminal is required by said learned result, instruct said user authenticating means to execute the user authentication for user authentication information received in response to the request, and change the content of said means for storing the correspondence information and cause said received packet to be relayed to the determined destination if the user is authenticated to be correct, and

wherein the user authentication information stored in said means for storing user authentication information contains a contact mail address of the concerned user, and said user authenticating means operates to create a message indicating that a packet having the incorrect user authentication information has been received by the network relaying apparatus if the user authentication information is determined to be incorrect for said source network address as a result of said user authentication, and to instruct said packet communicating means to transmit said message to said contact mail address of the concerned user.

5. (Currently amended) A network relaying apparatus, as ~~claimed in claim 1, further comprising~~ comprising:

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a plurality of I/O ports adapted to be connected to
respective network terminals;

means for storing correspondence information indicating a
correspondence between each of said I/O ports and a network
address of each of said network terminals connected to each of
said I/O ports;

means for storing user authentication information for
each of said network addresses;

packet communicating means for transmitting and receiving
packets through said I/O ports;

packet relaying means for determining a destination of
each packet received via said plurality of I/O ports on a
basis of the correspondence information held by said means for
storing the correspondence information, and for instructing
said packet communicating means to transmit said received
packets to the determined destination; and

user authenticating means for determining correspondence
of user authentication information and network addresses on a
basis of the user authentication information stored in said
means for storing the authentication information,

wherein said packet relaying means operates to learn
whether there is correspondence between an I/O port which has
received a packet and said source network address identified

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in the packet on a basis of the source network address contained in said received packet, request user authentication information for a source network terminal having the source network address if the change of the content of said means for storing the correspondence information relating to the connecting state of the source network terminal is required by said learned result, instruct said user authenticating means to execute the user authentication for user authentication information received in response to the request, and change the content of said means for storing the correspondence information and cause said received packet to be relayed to the determined destination if the user is authenticated to be correct, and

wherein said network relaying apparatus further comprises means for storing a contact mail address of an administrator of said network relaying apparatus, wherein said user authenticating means operates to create a message indicating that a packet having the incorrect user authentication information has been received by the network relaying apparatus if the user authentication is determined to be incorrect for said source network address as a result of said user authentication, and to instruct said packet communicating

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means to transmit said message to the contact mail address of the administrator.

6. (Currently amended) A network relaying apparatus as claimed in claim [[1]] 4, wherein said network address is an IP address.

7. (Currently amended) A network relaying apparatus as claimed in claim [[1]] 4, wherein said network relaying apparatus communicates by using a mobile IP.

8. (Canceled).

9. (Currently amended) A communication control method as claimed in claim [[8]] 11, further comprising the steps of:

if the correct user authentication information cannot be obtained from said first network terminal, suppressing a change of the content of said means for storing the correspondence information and discarding said received packet.

10. (Currently amended) A communication control method as claimed in claim [[9]] 11, further comprising the step of:

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if the correct user authentication information cannot be obtained from said first network terminal, suppressing the transfer of the packet at the I/O port having received said packet.

11. (Currently amended) A communication control method ~~as claimed in claim 8, further comprising the steps of:~~ in a communications network system having plural network terminals and a network relaying apparatus connected through a communication path, said network relaying apparatus having a plurality of I/O ports connected with said network terminals and means for storing correspondence information relating to a connecting state of each of said network terminals, said correspondence information indicating correspondence between each of said I/O ports and a network address of each of said network terminals connected to said I/O ports, comprising the steps of:

registering user authentication information with a correspondence to each network address of each of said network terminals;

receiving a packet transmitted by a first network terminal through one of said I/O ports;

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if a source network address contained in said received packet does not correspond to said one of said I/O ports in the correspondence information stored in said means for storing the correspondence information, updating a content of said means for storing the correspondence information so that said source network address corresponds to said one of said I/O ports;

determining a destination of said received packet based on the correspondence information and transmitting said received packet to the determined destination;

when the content of said means for storing the correspondence information is to be updated, requesting user authentication information for said first network terminal, for performing user authentication on a basis of the user authentication information registered for each network address if said source network address does not correspond to said receive I/O port stored in said means for storing the correspondence information, and changing the content of said means for storing the correspondence information and transmitting said received packet to the determined destination if the correct user authentication information is obtained;

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registering said user authentication information and a contact mail address of the concerned user for each network address; and

if the correct user authentication information cannot be obtained from said first network terminal, transmitting to a contact mail address, registered with a correspondence to said source network address, a message for indicating that a packet having incorrect user authentication information has been received.

12. (Currently amended) A communication control method ~~as claimed in claim 8, further comprising the steps of:~~ in a communications network system having plural network terminals and a network relaying apparatus connected through a communication path, said network relaying apparatus having a plurality of I/O ports connected with said network terminals and means for storing correspondence information relating to a connecting state of each of said network terminals, said correspondence information indicating correspondence between each of said I/O ports and a network address of each of said network terminals connected to said I/O ports, comprising the steps of:

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registering user authentication information with a
correspondence to each network address of each of said network
terminals;

receiving a packet transmitted by a first network
terminal through one of said I/O ports;

if a source network address contained in said received
packet does not correspond to said one of said I/O ports in
the correspondence information stored in said means for
storing the correspondence information, updating a content of
said means for storing the correspondence information so that
said source network address corresponds to said one of said
I/O ports;

determining a destination of said received packet based
on the correspondence information and transmitting said
received packet to the determined destination;

when the content of said means for storing the
correspondence information is to be updated, requesting user
authentication information for said first network terminal,
for performing user authentication on a basis of the user
authentication information registered for each network address
if said source network address does not correspond to said
receive I/O port stored in said means for storing the
correspondence information, and changing the content of said

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means for storing the correspondence information and transmitting said received packet to the determined destination if the correct user authentication information is obtained;

registering a contact mail address of an administrator of said network relaying apparatus; and

if the correct user authentication information cannot be obtained from said first network terminal, transmitting to a contact mail address of the administrator of said network relaying apparatus a message indicating that a packet having incorrect user authentication information has been received.

13. (Currently amended) A communication control method as claimed in claim [[8]] 11, wherein said network address is an IP address.

14. (Original) A communication control method as claimed in claim 13, wherein said network relaying apparatus is a LAN switch including a virtual LAN.

15. (Original) A communication control method as claimed in claim 14, wherein if the correct user authentication information cannot be obtained from said first

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network terminal, a message indicating receipt of a packet having incorrect user authentication information is transmitted to all of the network terminals of the VLAN having the network terminal that belongs to the source network address of said received packet.

16. (Currently amended) A communication control method as claimed in claim [[8]] 11, further comprising the steps of:

when determining a destination of said received packet, if the correspondence between the destination network address of said received packet and the I/O port needs the update of the content of said means for storing the correspondence information relating to a connecting state of said network terminal, requesting user authentication information for the network terminal of said destination network address for the purpose of doing the user authentication on a basis of the user authentication information registered for each network address, updating the content of said means for storing the correspondence information, and transmitting said received packet if correct user authentication information can be obtained.

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17. (Currently amended) A communication control method as claimed in claim [[8]] 11, further comprising the step of: requesting the user authentication information for each network address held in said means for storing the correspondence information, for the purpose of periodically performing the user authentication on a basis of the user authentication information registered for each network address.

18. (Currently Amended) A program for controlling communications in a communications network system having a plurality of network terminals and a network relaying apparatus through a communication path, said network relaying apparatus having a plurality of I/O ports connected with said network terminals and means for storing correspondence information relating to a connecting state of each of said network terminals, said correspondence information indicating correspondence between each of said I/O ports and a network address of each of said network terminals connected with said I/O ports, said relaying apparatus operating to receive packets transmitted by said network terminals through said I/O ports, if a source network address contained in said received packet does not correspond with said receive I/O port stored

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in said means for storing the correspondence information ~~relating to a connecting state of said network terminal,~~
update the content of said means for storing the correspondence information ~~relating to a connecting state of said network terminal~~ so as to make the correspondence correct, determine a destination of said received packet on a basis of the information stored in said means for storing the correspondence information ~~relating to a connecting state of said network terminal,~~ and transmit said received packet, said program containing a program code taking the steps of:

registering user authentication information ~~at the~~ with a correspondence to each network address of each of said network terminals; and

when updating a content of said means for storing the correspondence information ~~relating to a connecting state of said network terminal,~~ if said source network address does not correspond with said receive I/O port stored in said means for storing the correspondence information ~~relating to a connecting state of said network terminal,~~ requesting user authentication information for said first network terminal for doing user authentication on a basis of the user authentication information registered at said network address, and changing a content of said means for storing the

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correspondence information relating to a connecting state of
said network terminal and transmitting said received packet if
the correct user authentication information can be obtained;

determining a destination of said received packet based
on the correspondence information and transmitting said
received packet to the determined destination;

when the content of said means for storing the
correspondence information is to be updated, requesting user
authentication information for said first network terminal,
for performing user authentication on a basis of the user
authentication information registered for each network address
if said source network address does not correspond to said
receive I/O port stored in said means for storing the
correspondence information, and changing the content of said
means for storing the correspondence information and
transmitting said received packet to the determined
destination if the correct user authentication information is
obtained;

registering said user authentication information and a
contact mail address of the concerned user for each network
address; and

if the correct user authentication information cannot be
obtained from said first network terminal, transmitting to a

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contact mail address, registered with a correspondence to said source network address, a message for indicating that a packet having incorrect user authentication information has been received.

19. (Currently Amended) A network relaying apparatus, comprising:

a plurality of I/O ports adapted to be connected to respective network terminals having respective network addresses;

a relaying unit adapted to determine a destination of each packet received by the network relaying apparatus via any of said plurality of I/O ports;

a first storage adapted to store a host table;

an authenticating unit; and

a second storage adapted to store an authentication table;

wherein, upon receipt by said network relaying apparatus of a packet via one of said I/O ports, said relaying unit refers to the host table to determine, based on information in the host table, whether the packet should be relayed to the determined destination;

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wherein, if said relaying unit determines that the packet should be relayed to the determined destination, then the relaying unit causes the packet to be relayed to the determined destination;

wherein, if the relaying unit determines that the packet should not be relayed to the determined destination, then the relaying unit sends an inquiry to the authenticating unit;

wherein, upon receipt of the inquiry from the relaying unit, said authenticating unit requests user authentication information to determine, based on information in the authentication table, whether the host table should be rewritten;

wherein, if the authenticating unit determines that the host table is to be rewritten, the authenticating unit notifies the relaying unit of a rewrite enable, responsive to which the relaying unit causes the host table to be rewritten to include a correspondence between the I/O port that received the packet and the network address of the network terminal that sent the packet to the network relaying apparatus; ~~and~~

wherein if the authenticating unit determines that the host table is not to be rewritten, the authenticating unit notifies the relaying unit of a rewrite inhibit; and

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wherein if the user authentication information is determined to be incorrect for the network address of the network terminal that sent the packet as a result of said user authentication, said authenticating unit operates to cause a message to be transmitted to a contact mail address of the concerned user, the message indicating that a packet having the incorrect user authentication information has been received by the network relaying apparatus.

20-22. (Canceled).

23. (New) A network managing method in a network system which includes at least a network relaying apparatus having a plurality of ports coupled to terminals through communication lines, comprising the steps of:

receiving, at a first port of the plurality of ports, a first packet from the terminal;

when a first IP address contained in the first packet does not coincide with information stored in correspondence with the first port, requesting the terminal to send a user name and authentication information; and

receiving a user name and authentication information sent from the terminal in response to the request, and sending a

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message when it is determined that the user name and the authentication information thus received do not correspond to the first IP address.

24. (New) A network managing method according to Claim 23, wherein the message is sent to a mail address stored in correspondence with the IP address.

25. (New) A network managing method according to Claim 23, wherein the message includes the user name.